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10/686,693	10/15/2003	Naonori Nishioka	FUJZ 20.674	9172

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EXAMINER

BRITT, CYNTHIA H

ART UNIT	PAPER NUMBER
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2138

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,693

Applicant(s)

NISHIOKA, NAONORI

Examiner

Cynthia Britt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1-6 remain pending in the present application.

Response to Amendment

The examiner notes that applicant has attempted to clarify the issues noted in the previous office action. There remain, however, many unaddressed and unresolved issues. Applicant is requested to review the first office action to verify all issues have been addressed.

Drawings

The drawings submitted with the response 3/20/06 are acceptable.

Specification

The abstract as submitted is copied below for reference.

In a method and a device for testing a plurality of measured devices in parallel by using a single signal generator and a single bit error measuring device, a serial signal for testing purposes is converted and demultiplexed into parallel signals corresponding to channels respectively assigned to a plurality of measured devices and a redundant channel, a passing signal passing through the redundant channel is converted into a channel determination signal for specifying an alignment of the measured devices, output signals of the measured devices and the channel determination signal are multiplexed corresponding to a demultiplexing mode used for demultiplexing the serial

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signal, and bit errors are measured in the multiplexed signals and measured devices at which the bit errors are generated are detected in consideration of the channel determination signal.

The abstract of the disclosure is objected to because:

The phrase: "a serial signal for testing purposes" would be more clear as "a serial test signal"

The term "measured devices" remains undefined.

The phrase: "a passing signal passing through the redundant channel" is unclear.

This phrase is also unclear: "bit errors are measured in the multiplexed signals and measured devices at which the bit errors are generated are detected in consideration of the channel determination signal."

The examiner would like to point out that some of these issues were addressed in the first office action and have not been addressed.

Correction is required. See MPEP § 608.01(b).

35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise, and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact, or verbose terms used in the specification are:

As per the Substitute Specification, the following issues are in question, some remained unanswered from the prior office action:

The term "measured device(s)" has not been defined.

As stated before, "The examiner can only conclude that these "measured devices" are the devices under test and have some relation to a communication channel (by assignment? page 6 lines 1-4 of the specification). This is also unclear from the specification. The examiner would like to point out that this is a critical issue as this term is used in all of the claims and in the drawings (the operation is also unclear since the measured device in figures 1, 2 and 5 are upstream from the measuring device)

"measuring occurrence of bit errors in the multiplexed signals and detecting measured devices at which the bit errors are generated in consideration of the channel determination signal." (Summary of invention, claim1) This statement is unclear.

As much of the claim language is identical to the definition in the specification, these issues have not been completely addressed. It appears that only the items within the specification that were specifically pointed out were amended. As stated previously, the examples of these terms were given as an example only.

This is merely a sample of the unclear language in the specification

The specification (including the claims and abstract) appears to be a literal translation into English from a foreign document and is replete with grammatical and idiomatic errors. These deficiencies may be overcome with a replacement specification properly translated into a form which clearly defines the scope of the invention including language which would enable one of ordinary skill in the art to make or use the claimed invention.

Applicant is required to submit an amendment which clarifies the disclosure so that the examiner may make a proper comparison of the invention with the prior art.

Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

The examiner would like to specifically point to page 5 of the marked up specification as many of these issues were addressed in the previous office action although this specific passage was not pointed out (this is only a single example – please review/revise the entire specification).

"The signals passing through the measured devices 3-1 - 3-10 are transmitted to the signal multiplexer 4, which multiplexes the output signals of the measured devices 3-1 - 3-10 corresponding to the demultiplexing mode of the signal demultiplexer 2 to be transmitted to the bit error measuring device 5. Accordingly, even if the testing signal S has a pseudo random pattern, the law of the signal pattern is kept between the signal demultiplexer 2 and the signal multiplexer 4, and a bit error can be measured as a signal including a bit error generated at the measured devices 3-1-3-10.

Accordingly, the bit error measuring device 5 can synchronize the multiplexed signal with the measuring device 5 itself, so that once the bit error is measured, the bit error measurements of the measured devices 3-1- 3-10 connected can be simultaneously performed.

However, although the measured devices 3-1 - 3-10 connected can be measured in the parallel in a parallel measurement system where the testing signal S is simply demultiplexed/multiplexed as shown in Fig. 1, alignment of a measurement start point and a demultiplexing/multiplexing start point can not be determined even if a location (position) of an error bit generation measured by the bit error measuring device 5 can

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be analyzed. Therefore, the measured device in which the bit error was generated can not be specified, and a bit error of each measured device can not be measured, although a tendency of a bit error rate can be confirmed as a whole."

(page 2, page 6, page 9 and page 10 also have some of the above indicated issues)

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 and 4, the following phrases are unclear and not clearly defined in the specification (see rejection above):

The term "measured device(s)" is not defined.

The phrase "measuring occurrence of bit errors in the multiplexed signals and detecting measured devices at which the bit errors are generated in consideration of the channel determination signal." (also stated in the Summary of invention) This statement is unclear.

This can be restated in a clear form that states that applicant is determining which device has generated the bit error based on the channel determination signal.

The examiner here is assuming (because this is unclear also from the specification) that the channel determination signal is used by the bit error measuring device (although this is not in the claim language) to determine which device produced the error based on the multiplexing/demultiplexing of the test signals. These assumptions are being made because the phrase "converting a signal passing through the redundant channel into a channel determination signal for specifying an alignment of the measured devices; multiplexing output signals of the measured devices and the channel determination signal corresponding to a demultiplexing mode used for demultiplexing the serial signal;" is also unclear because there is no statement of what the signal was before it was converted (within the specification or the claims) and there is no definition of the "alignment of the channels"

These issues were also raised in the previous office action.

Claims 2, 3, and 6 are dependent on the above rejected claim 1 and therefore inherit the 35 U.S.C. second paragraph issues of independent claim 1.

Claim 4 is the independent device claim corresponding to the above rejected method claim. The language used in claim 4 is the same as rejected above in claim 1 and is therefore rejected for the same reasons.

Claims 5 is dependent on the above rejected claim 4 and therefore inherits the 35 U.S.C. second paragraph issues of independent claim 4.

The dependent claims will not be further considered on their individual merits.

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According to the MPEP 904.01, the Examiner is obligated to give each term in the claims its broadest reasonable interpretation. See also *In re Morris*, 127 F.3d 1048, 44 USPQ2d 1023 (Fed. Cir. 1997). While the M.P.E.P. (see M.P.E.P. 2111) requires that the examiner give "the broadest reasonable interpretation" to claims "consistent with the specification" it also warns that "reading a claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from reading limitations of the specification into a claim, to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim." Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claims must stand on their own.

Based on the examiner's limited understanding of the claimed invention, the following 102 (b) rejection will be given.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Cloonan U.S. Patent No. 5,566,193.

As per claims 1 and 4,

Cloonan teaches the claimed method and device for testing for bit errors " At the receiver 40.sub.0, the two serial data words are received from cables 36.sub.0, 38.sub.0 and conveyed to two receiver/demultiplexer chips 62, 82. Each receiver/demultiplexer chip 62, 82 determines of the word boundaries for the (X+Y) bit serial words. Subsequently, each receiver/demultiplexer chip 62, 82 decomposes its received (X+Y) bit word into an X-bit parallel data word in response to the serial data word it received on its respective cable 36.sub.0, 38.sub.0. Each parallel data word is connected at its respective parallel output ports to parallel buses 64, 84 and from parallel buses 64, 84 to registers 66, 86. Receiver 40.sub.0 must then determine if either of the two X-bit words in registers 66, 86 has been corrupted by the high-bandwidth serial links 36.sub.0, 38.sub.0. To make this determination, receiver 40.sub.0 uses the respective Y bits (from the parity generator 46), which are transmitted over serial links 36.sub.0, 38.sub.0 with each X bit data word. Each of the receiver/demultiplexer chips 62, 82 produces a Y bit wide parallel error detector word corresponding to the error detection bits of each serial data word received. The Y bit error detection words are connected by parallel buses 68, 88 to respective error detectors 70, 90. Error detectors 70 and 90 are also connected to parallel buses 64 and 84. Error detectors 70, 90 perform and the same parity checks are performed by parity bit word generator 46 and compares the results of the received parallel data word with the Y bit error detection word received. If no error occurs, then they will be identical." (Column 5 line 47 through column 6 line 7, Figure 2)

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,094,737 Fukasawa

This patent teaches detecting bit errors using a demultiplexer/multiplexer combination for transmission of signals.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

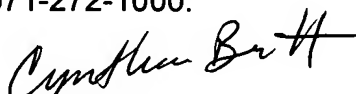
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Applicant is invited to contact the examiner at the number below if help is required in addressing the 112 issues in this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Britt whose telephone number is 571-272-3815. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 571-272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Cynthia Britt
Primary Examiner
Art Unit 2138